Session Six
Community Sustainability

Jerry Hembd
Associate Professor
Department of Business and Economics
University of Wisconsin-Superior
State Specialist
Community and Economic Development
University of Wisconsin-Extension
University of Wisconsin-Superior
Belknap & Catlin, PO Box 2000
Superior, WI 54880
715.394.6208
jhembd@uwsuper.edu

Understanding Communities and their Dynamics

1. Basic Understanding of Community
2. Community Demographics
3. Community Economics
4. Community Power Structure
5. Community Situational Analysis
6. Community Sustainability
7. Community Development Process
Learning Objectives

- Understand community sustainability within the historical context of community economic development
- Gain an understanding of systems thinking and its importance to sustainability
- Become familiar with some sustainability frameworks that are science and systems based and applicable to planning and decision making
- Gain access to some relevant tools and resources
- Consider a proposed Cooperative Extension Vision for Relevance

Four Challenges Posed by Transition to Sustainability

- We need more accurate models, metaphors, and measures to describe the human enterprise relative to the biosphere.
- It will require a marked improvement and creativity in the arts of citizenship and governance.
- The public’s discretion will need to be informed through greatly improved education.
- It will require learning how to recognize and solve divergent problems, which is to say a higher level of spiritual awareness.


Three Waves of Community Economic Development

Three Waves Portion Derived from:

Industrial Recruiting
1950s to Early 1980s

**Driver**
- Export base
- Attract outside firms

**Goal**
- Financial incentives
- Industrial parks

**Keys to Success**
- Government funds for subsidies and tax breaks
- Industrial infrastructure

Cost Competition
Early 1980s to Early 1990s

**Driver**
- Efficiency and scale economies
- Retention and expansion of existing firms

**Goal**
- Reduce taxes
- Deregulation

**Keys to Success**
- Health of existing firms
- Training programs
- Social and physical resources

Regional Competitiveness
Early 1990s to Present

**Driver**
- Innovation and entrepreneurship
- Enhance regional resources to promote industrial clusters

**Goal**
- Entrepreneurship
- Clusters
- Building regional collaboration

**Keys to Success**
- Distinct regional assets such as:
  - Human capital
  - Higher education
  - Amenities
  - Creative economy
  - Leadership and development of quality environment
  - Bridging economic and community development
Community Sustainability  
Early 1980s and Still Evolving

Drivers
- Sustainable development
- Systems thinking

Goal
- Sustainability

Emerging Strategies
- Green collar jobs
- Alternative energy sources

- Valuing ecosystem services
- Local food systems
- Sustainable (eco) tourism
- Triple bottom line business
- Industrial ecology
- Precautionary principle
- Eco-municipalities
- Transition towns

Summary “Wave” Points

First Wave
- External focus, business and industry
- Physical infrastructure

Second Wave
- Internal focus, business and industry
- Training and social resources

Third Wave
- Internal focus, human and social capital
- Community and economic development

Fourth Wave
- Holistic focus: human, social, and natural capital
- Economic, social, and ecological relationships

Defining Sustainable Development

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Intergenerational Equity

It contains two key concepts: the concept of “needs,” in particular the essential needs of the world’s poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs."

Intragenerational Equity & Limits

Evolving Views of the Community

Unconnected or silos view

Interconnected or linkages view

Interdependent, nested, or systems view

Community Capitals Framework

Source: Cornelia Butler Flora, North Central Regional Development Center, 2004
Manufactured Capital
Natural Capital
Human Capital
Economy
Society
Financial Capital
Social Capital
Natural Capital

Source: Forum for the Future

What Is a System?
Conventional Thinking

Traditionally, we try to understand complex systems by reducing the whole and studying the individual parts.

This is called reductionist thinking.

Source material from TNS Canada

Systems Thinking

But...

We know that the properties of systems depend on the relationships between the parts as much as the parts themselves.

When you dissect the system, you destroy the pattern of relationships.

Source material from TNS Canada

Systems Thinking

We must look at the whole ...

... and not get stuck on details

Source material from TNS Canada
Solar Energy

Finite Global Ecosystem

Empty World

Source: Daly, Herman. Ecological Economics. Island Press, 2004

Supporting
- Nutrient cycling
- Soil formation
- Primary production

Provisioning
- Food
- Freshwater
- Wood and fiber
- Fuel

Regulating
- Climate regulation
- Flood regulation
- Disease regulation
- Water purification

Cultural
- Aesthetics
- Spiritual
- Educational
- Recreational

Waste Heat

Natural Capital (Ecosystem)

Manmade Capital (Economy)

Ecosystem service

Growth Trends Summary: Past Two Centuries

- Population: sixfold
- Energy use: eightyfold
- Economy: sixty-eight fold

"It took all of human history for the global economy to reach the 1950 level of over $5 trillion; in this decade, the world economy expanded that much in a single year."


Growth Trends Summary: 1950 to 2000

- Population: more than 2X
- Economy: 7X
- Food consumption: 3X
- Water use: 3X
- Energy use: 4X

Source: Daly, Herman. Ecological Economics. Island Press, 2004

Finite Global Ecosystem

Source: Daly, Herman. Ecological Economics. Island Press, 2004
Key Science-based Analyses

Millennium Ecosystem Assessment (2005)
Two-thirds of ecosystems and their services are degraded or being used unsustainably.

Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC 2007)
The Earth is warming.
Humans play a significant role.

Conceptual Reform: Seven Big Ideas in Economics

- Adjust economic scale
- Shift from growth to development
- Make prices tell the ecological truth
- Account for nature’s contributions
- Apply the precautionary principle
- Revitalize commons management
- Value women


Community Development

- A group of people in a locality
- Initiating a social action process (i.e., planned intervention)
- To change their economic, social, cultural, and/or environmental situation
A Growing Movement

Community Stories

Wisconsin Eco-Municipalities

- Town of La Pointe
- City of Washburn
- City of Ashland
- City of Madison
- City of Bayfield
- Town of Bayfield
- Douglas County
- Village of Johnson Creek
- City of Marinette
- City of Newbold
- City of Menasha
- Town of Menasha
- City of Eau Claire
- Town of Cottage Grove
- City of La Crosse
- La Crosse County
- City of Stevens Point
- City of Wausau
- City of Beloit
- City of Baraboo
- City of Sheboygan
- Dunn County
- Village of Spring Green
- Village of Cuba City

Swedish Eco-Municipalities

An eco-municipality aspires to develop an ecologically, economically, and socially healthy community for the long term, using The Natural Step Framework for sustainability as a guide, and a democratic, highly participative development process as the method.
The Natural Step

The Natural Step is an international non-profit research, education and advisory organization that uses a science-based, systems framework to help organizations, individuals and communities take meaningful steps toward sustainability.

Source material from TNS Canada

The Natural Step Framework

- A science- and systems-based definition for sustainability
- A decision-making framework and process to help organizations and communities plan for sustainability
- A shared language provides a compass to help us know if we're moving in the right direction

Source material from TNS Canada

The Natural Step Resource Funnel

Resource availability and ecosystem ability to provide vital services

- Raw materials, ecosystem services, declining integrity and capacity of natural systems
- Margin for Action

Sustainability

- Societal demand for resources: Growth in population, resource requirements as affluence increases, increased demands as technology spreads.

Ways We are Un-sustainable

We dig stuff (like heavy metals and fossil fuels) out of the Earth's crust and allow it to build up faster than nature can cope with it.

We create man-made compounds and chemicals (like pesticides and fire retardants in carpets, etc.) and allow them to build up faster than nature can cope with them.

We continuously damage natural systems and the free services they provide (including climate regulation and water filtration) by physical means (for example, overharvesting and paving wetlands).

We live in and create societies in which many people cannot meet their basic needs (for example, affordable housing).

Basic Conditions for Sustainability

In a sustainable society, nature is not subject to systematically increasing:

- Concentrations of substances extracted from the earth's crust
- Concentrations of substances produced by society
- Degradation by physical means
  and, in that society...
- People are not subject to conditions that systematically undermine their capacity to meet their needs.

The Natural Step Planning Framework

"D" Step
• Right direction?
• Flexible Platform?
• Return on investment?

Awareness

Drawn to action

Competing visions of the future

Baseline analysis

time
The A-B-C-D Process

Awareness

Creative

Baseline

Creative

Solutions

Decide on Priorities

Present Future

Does it move us in the right direction?

Is it a flexible platform?

Is it a good return on investment?

Source material from TNS Canada

Who Uses It?

Swedish Eco-municipalities

City of Madison, WI

Source material from TNS Canada

Eco-municipality Steps to Success

1. Finding the Fire Souls
2. Providing initial education/raising awareness
3. Obtaining official endorsement
4. Involving the implementers
5. Applying the ABCD planning process
6. Getting the whole plan endorsed
7. Keeping it going (institutionalization)
Study Circles

- Groups of 8 to 12
- Eight weeks
- Ninety minutes sessions
- Participant facilitated
- Study guide available
  Sustain Dane

Natural Step Resources

www.naturalstep.org

Toward a Sustainable Community: A Toolkit for Local Government

Posted as pdf:
www.shwec.uwm.edu

Direct link:
www.shwec.uwm.edu/sustk
Content of Toolkit

- Premise: Local government can lead by example
- Focus on the internal workings of local government
  - Energy
  - Buildings
  - Procurement
  - Transportation
  - Human resources
  - Investment
- Provides ideas and specific actions
  - Local government transformation
  - Model of sustainable practices

Steps to Move toward Sustainability

1. Convene a task force, committee, study group, green team, etc.
   - Wide representation
   - Assessment, identify opportunities, vision and goals
   - Develop recommendations for consideration by elected officials
2. Commit to becoming a sustainable community through a formal resolution
3. Adopt a guiding principle or framework for sustainability
4. Establish a standing committee or advisory board to oversee implementation and to further develop a strategic sustainable community plan

Steps to Move toward Sustainability, Continued

5. Establish a department, reconfigure existing departments, or appoint or hire a director of sustainability
6. Educate and train staff and officials across departments about sustainability
7. Establish demonstrations
   - Existing or new projects
   - Provides experience
   - Allows leadership to show progress and successes
   - Provides local models
Steps to Move toward Sustainability, cont.

8. Adopt full cost accounting
   - Front-end costs
   - Direct and indirect daily operating costs
   - Back-end costs such as closing a facility or program, post-closure care and monitoring

9. Measure, track, record, and report results
   - Sustainability indicators

10. Publicize and celebrate

General Sustainability Resources – Books


General Sustainable Business Resources


A Vision for Relevance

**Question:** Should Cooperative Extension galvanize and lead a public shift to sustainability in response to climate change?

**Answer:** The time is NOW for Extension to engage individuals and communities for environmental stewardship, through Sustainable Living Education.

Essential Steps to Engage with Sustainable Living Education

A. Educational programs must be **multidisciplinary**.

B. Educational programs must **holistically** address the total energy, water and carbon footprint of the lifestyle choices of our stakeholders.

C. Educational programs **must take place now** – with in-service and other professional trainings for our existing workforce.


D. Educational programs must focus on how choices, decisions and behaviors affect natural resources, equity, and economic development at the local, regional, national and global scales.

E. Extension must be the model for others to emulate. We have to **walk our talk**.

F. With success at the personal and family level, and a constituency ready to effect community change, Extension can **help communities rethink their municipal systems** that constrain our options for living sustainably.


Questions? Comments?
Looking Ahead
Community Development Process
Deborah Tootle
University of Arkansas
November 10 and 11

Evaluation
• Please complete the evaluation on this presentation located on the web site